WHAT IS CLAIMED IS:

1. An apparatus for determining rheological properties of a test substance, said apparatus comprising two plates which are spaced apart from each other and are movable relative to each other and which delimit an intervening space for receiving the test substance, said apparatus further comprising a light passage that does not alter said intervening space, said light passage facilitating optical measurement of the test substance, whereby an optical analysis of the test substance can be carried out simultaneously with the determination of rheological properties.

2. An apparatus according to claim 1, wherein said apparatus is adapted to determine the viscosimetric properties of the test substance.

3. An apparatus according to claim 1, wherein said optical measurement is a spectroscopic analysis.

4. An apparatus according to claim 3, wherein said spectroscopic analysis is an infrared spectroscopic analysis.

5. An apparatus according to claim 1, wherein the light passage is formed by a segment transmissive to infrared light and having a contour which terminates flush with a surface of a plate that is oriented facing the intervening space.

6. An apparatus according to claim 1, wherein the light passage comprises an wear resistant light transmissive body selected from the group consisting of diamond, ZnSe and germanium, .

7. An apparatus according to claim 6, wherein said light transmissive body has a light-introduction surface on a segment opposite the intervening space, said light-introduction surface being inclined in accordance with a desired light entry angle relative to the plane of the plate.

8. An apparatus according to claim 1, wherein the apparátus further comprises a second light passage on the same plate as the first light passage.

9. An apparatus according to claim 1, wherein the second plate has a reflection surface positioned to reflect a light beam entering the intervening space through the light passage.

10. An apparatus according to claim 1, wherein said reflection surface is an infrared reflective surface, and said light be is an infrared beam.

11. An apparatus according to claim 1, wherein at least one of the plates comprises means for heating or cooling in order to obtain a desired temperature.

12. An apparatus according to claim 1, wherein one of the plates is at least partially conical.

13. An apparatus according to claim 1, wherein the plates are spaced apart from each other by an adjustable distance.

14. An apparatus according to claim 1, wherein the second plate is movably driven.

15. An apparatus according to claim 1, wherein the optical measurement is an attenuated total reflection (ATR) measurement that can be carried out by the apparatus.

16. An apparatus according to claim 1, wherein the light passage comprises a light transmissive body with a plurality of light reflection surfaces.

17. An apparatus according to claim 1, wherein the apparatus can be selectively used to carry out an attenuated total reflection (ATR) measurement or an infrared spectroscopic measurement.

18. An apparatus according to claim 1, wherein the apparatus includes a control unit for recording measured values obtained by the rheological measurement and the optical measurement and evaluating the measured values by comparison to reference values.

19. An apparatus according to claim 18, wherein said reference values represent viscosity values of known substances.

20. An apparatus according to claim 1, wherein said two plates are rotatable relative to each other.